WHAT IS CLAIMED IS:

 ζ_{ω} 1. A method for screening a piezoelectric transformer apparatus including an

vactuator and a generator, the method comprising the steps of:

beginning manufacturing of the piezoelectric transformer apparatus;

connecting a load impedance to said generator,

applying a stress signal to said actuator to vibrate the piezoelectric transformer apparatus, and

identifying whether the transformer apparatus has a defect.

2. The method according to Claim 1, further comprising the step of completing the manufacture of the piezoelectric transformer apparatus after the step of identifying whether the transformer apparatus has a defect.

3. The method according to Claim 1, wherein a vibration level of the piezoelectric transformer apparatus caused by the stress signal is within a range of a vibration level of the piezoelectric transformer apparatus in actual use to a vibration level of a fatigue limit of a reference piezoelectric transformer apparatus.



- 4. The method according to Claim 1, wherein the value of the load impedance is not less than about ten times an output impedance of the piezoelectric transformer apparatus.
- 5. The method according to Claim 1, wherein the value of the load impedance is not more than about one tenth of an output impedance of the piezoelectric transformer apparatus.
- 6. The method according to Claim 1, wherein the load impedance includes a resistance element.
- 7. The method according to Claim 1, wherein the stress signal is a sinusoidal continuous wave.
- 8. The method according to 1, wherein the stress signal is a sinusoidal burst wave.
- 9. The method according to Claim 8, wherein a duty ratio of the burst wave is not more than about 10%.
- 10. The method according to Claim 1, wherein the piezoelectric transformer apparatus is cooled.
- 11. The method according to Claim 1, wherein the piezoelectric transformer apparatus is a Rosen-type piezoelectric transformer apparatus.

- 12. The method according to Claim 1, wherein the piezoelectric transformer apparatus includes a single piezoelectric plate.
- 13. The method according to Claim 1, wherein the piezoelectric transformer apparatus includes multiple piezoelectric plates.

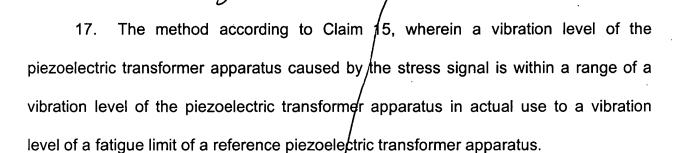
14. A method of manufacturing a piezoelectric transformer apparatus including an actuator and a generator, the method comprising the steps of:

beginning manufacturing of the piezoelectric transformer apparatus;

testing the piezoelectric transformer apparatus for latent defects; and completing manufacturing of the piezoelectric transformer.

15. The method according to claim 14, wherein the step of testing includes the steps of connecting a load impedance to said generator and applying a stress signal to said actuator to vibrate the piezoelectric transformer apparatus.

16. The method according to claim 15, further comprising the step of identifying whether the piezoelectric transformer apparatus has a latent defect after said steps of connecting a load impedance to said generator and applying a stress signal to said actuator to vibrate the piezoelectric transformer apparatus.



- 18. The method according to Claim 15, wherein the value of the load impedance is not less than about ten times an output impedance of the piezoelectric transformer apparatus.
- 19. The method according to Claim 15, wherein the value of the load impedance is not more than about one tenth of an output impedance of the piezoelectric transformer apparatus.
- 20. The method according to Claim 15, wherein the load impedance includes a resistance element.